<u>REMARKS</u>

Reconsideration of the application in view of the above amendments and the following remarks is respectfully requested. No claims have been added or canceled after the Final Office Action. Claims 6, 15, and 24 have been amended. Claims 6-9, 15-18, and 24-36 are currently pending in the application.

CLAIM REJECTIONS – 35 USC 103(a)

The Final Office Action rejected Claims 6, 9, 15, 18, 24, 27, 28, 31, and 34 under 35 USC 103(a) as allegedly unpatentable over Courts et al., U.S. Patent No. 6,076,108 ("Courts") in view of Hickman et al., U.S. Patent No. 6,564,252 ("Hickman"). The Final Office Action rejected Claims 29, 30, 32, 33, 35, and 36 under 35 USC 103(a) as allegedly unpatentable over Courts in view of Hickman and Bellemore et al., U.S. Patent No. 6,088,728 ("Bellemore"). The Final Office Action rejected Claims 7, 8, 16, 17, 25, and 26 under 35 USC 103(a) as allegedly unpatentable over Courts in view of Hickman and Bayeh et al., U.S. Patent No. 6,098,093 ("Bayeh"). The rejections are respectfully traversed.

<u>Claims 6, 9, 15, 18, 24, 27, 28, 31, and 34</u>

Independent Claim 6 recites:

> A computer system, comprising:
> a memory-mapped file;
> a first server process, said first server process servicing a first request pertaining to a particular session, said first server process storing session information pertaining to said particular session in said memory-mapped file; and
> a second server process, said second server process servicing a second request pertaining to said particular session, said second server process accessing said session information from said memory-mapped file and using said session information to service said second request;

> wherein said memory-mapped file is mapped to at least a portion
> of a virtual memory space of said first server process and at least a portion
> of a virtual memory space of said second server process. (emphasis
> added)

The computer system of Claim 6 advantageously enables session information to

be shared across multiple processes in a multi-process environment. To enable such

sharing, a shared memory-mapped file is mapped to the virtual memory space of multiple

processes. The processes use this memory-mapped file to store session information.

Because the virtual memory spaces of the processes are mapped to the memory-mapped

file, and because the processes use the memory-mapped file to store session information,

the processes are able to share the session information in the memory-mapped file. Thus,

sessions are no longer maintained on a process-specific basis. Rather, they are

maintained on a centralized, shared basis. As a result, different requests pertaining to the

same session may be serviced by different server processes without any adverse effects.

Each process is able to access and manipulate all of the state information pertaining to a

particular session. By enabling session information to be shared across multiple

processes, the computer system of Claim 6 eliminates the session management

shortcomings experienced by the prior art.

Furthermore, by mapping the virtual memory space of each of the processes to a

shared memory-mapped file, the computer system of Claim 6 avoids the inefficiencies of

storing and retrieving session information via requests to and responses from a server.

The direct reading and writing of session information to a shared memory-mapped file is

faster than the reading and writing of session information via requests to and responses

from a server. Furthermore, by permitting processes to continue to read and write session

information to their own virtual memory spaces, which are mapped to the shared

memory-mapped file, the processes do not need to be modified or configured to send requests to and receive responses from a server.

Such a computer system is neither disclosed nor suggested by Courts. Indeed, the Final Office Action concedes that Courts fails to teach or suggest that a memory-mapped file is mapped to at least a portion of a memory space of a first server process and at least a portion of a memory space of a second server process, as recited by Claim 6. Thus, taken individually, Courts fails to teach or suggest the computer system of Claim 6.

Conceding the lack of such a teaching or suggestion by Courts, the Final Office Action relies upon Hickman to teach or suggest, allegedly, that a memory-mapped file is mapped to at least a portion of a memory space of a first server process and at least a portion of a virtual memory space of a second server process. In so relying, the Final Office Action appears to analogize the first and second processes recited by Claim 6 to two of web servers 145 shown in Hickman's Fig. 3. The Final Office Action further appears to analogize the memory-mapped file recited by Claim 6 to one of the "partitions" within one of the storage clusters 150 shown in Hickman's Fig. 3.

Following the Final Office Action's apparent analogy, if Hickman fails to teach or suggest that a "partition" within a storage cluster 150 is mapped to at least portions of virtual memory spaces of two of web servers 145, then Hickman also fails to teach or suggest that a memory-mapped file is mapped to at least a portion of a virtual memory space of a first server process and at least a portion of a virtual memory space of a second server process, as recited by Claim 6. As is explained below, Hickman actually fails to teach or suggest such a mapping.

Instead of disclosing that a "partition" within a storage cluster 150 is mapped to at least portions of virtual memory spaces of two of web servers 145, Hickman actually

discloses that a "partition map" "translates" **clients** 110 to corresponding "partitions" within storage clusters ("In order to translate clients to a corresponding partition within storage clusters 150, storage system 104 maintains a partitioning logic, referred to as a partition map" (col. 6, lines 17-20). "In order to retrieve the corresponding data, storage system 104 assigns each **client**, such as individual users, applications, communities, etc., a unique home directory within one of the storage clusters 150. This unique directory is referred to hereafter as a 'partition'" (col. 5, lines 63-67)). Apparently, Hickman discloses that **clients** 110, rather than portions of virtual memory spaces of server processes, are "translated" to "partitions."

Thus, instead of disclosing that a memory-mapped file is mapped to at least a portion of a virtual memory space of a first server process and at least a portion of a virtual memory space of a second server process, as recited by Claim 6, Hickman discloses that **clients** 110 are "translated" to "partitions." Nothing in Hickman teaches or suggests that a client is a server process, or that a client has a virtual memory space. Thus, nothing in Hickman teaches or suggests that a "partition" is memory mapped to the virtual memory space of multiple server processes, as claimed in Claim 6.

Furthermore, nothing in Hickman teaches or suggests that any of web servers 145 has a virtual memory space that is mapped to a "partition." Although web servers 145 might be able to **access** "partitions," nothing in Hickman teaches or suggests that portions of virtual memory spaces of web servers 145 are mapped to such "partitions," or even that web servers 145 themselves are mapped to such "partitions." Indeed, Hickman does not even indicate whether web servers 145 have virtual memory spaces. Thus, taken individually, Hickman also fails to teach or suggest the computer system of Claim 6.

Therefore, even combined (assuming arguendo that it would have been obvious to combine the references), Courts and Hickman fail to teach or suggest all of the limitations of Claim 6. As discussed above, neither of these references discloses or suggests "wherein the memory-mapped file is mapped to at least a portion of a virtual memory space of said first server process and at least a portion of a virtual memory space of said second server process." Thus, even if the references were combined, they would still fail to disclose or suggest at least this aspect of Claim 6. For at least this reason, Applicants submit that Claim 6 is patentable over Courts and Hickman, taken individually or in combination.

Applicants further submit that Claims 9 and 28, which depend from Claim 6 and which recite further advantageous aspects of the invention, are also patentable over Courts and Hickman, taken individually or in combination, for at least the reasons given above in connection with Claim 6.

Claims 15, 18, and 31 are method claims, which are analogous to the computer systems of Claims 6, 9, and 28, respectively. Applicants submit that Claims 15, 18, and 31 are patentable over Courts and Hickman, taken individually or in combination, for at least the reasons given above in connection with Claims 6, 9, and 28, respectively.

Claims 24, 27, and 34 are computer-readable medium claims, which are analogous to the methods of Claims 15, 18, and 31, respectively. Applicants submit that Claims 24, 27, and 34 are patentable over Courts and Hickman, taken individually or in combination, for at least the reasons given above in connection with Claims 15, 18, and 31, respectively.

<u>Claims 7, 8, 16, 17, 25, 26, 29, 30, 32, 33, 35, and 36</u>

Claims 7, 8, 29, and 30 depend from Claim 6. As discussed above, Claim 6 requires "wherein the memory-mapped file is mapped to at least a portion of a virtual memory space of said first server process and at least a portion of a virtual memory space of said second server process." By virtue of their dependence from Claim 6, Claims 7, 8, 29, and 30 also include this limitation.

As discussed above, Courts and Hickman, taken individually or in combination, do not in any way disclose or suggest this limitation. Thus, Claims 7, 8, 29, and 30 are patentable over Courts and Hickman, taken individually or in combination.

Bellemore and Bayeh also fail to disclose or suggest this limitation. In fact, the Office Action does not even allege that Bellemore or Bayeh discloses or suggests this limitation. Thus, Claims 7, 8, 29, and 30 are patentable over Bellemore and Bayeh, taken individually.

Even combined (assuming arguendo that it would have been obvious to combine the references), Courts, Hickman, Bellemore and Bayeh fail to disclose or suggest all of the limitations of Claims 7, 8, 29, and 30. As discussed above, none of these references discloses or suggests "wherein the memory-mapped file is mapped to at least a portion of a memory space of said first server process and at least a portion of a memory space of said second server process." Thus, even if the references were combined, they would still fail to disclose or suggest this aspect of Claims 7, 8, 29, and 30. For at least this reason, Applicants submit that Claims 7, 8, 29, and 30 are patentable over Courts, Hickman, Bellemore, and Bayeh, taken individually or in combination.

Claims 16, 17, 32, and 33 are method claims, which are analogous to the computer systems of Claims 7, 8, 29, and 30, respectively. Applicants submit that

Claims 16, 17, 32, and 33 are patentable over Courts, Hickman, Bellemore, and Bayeh, taken individually or in combination, for at least the reasons given above in connection with Claims 16, 17, 32, and 33, respectively.
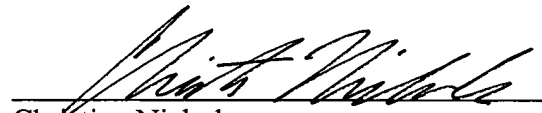
Claims 25, 26, 35, and 36 are computer-readable medium claims, which are analogous to the methods of Claims 16, 17, 32, and 33, respectively. Applicants submit that Claims 25, 26, 35, and 36 are patentable over Courts, Hickman, Bellemore, and Bayeh, taken individually or in combination, for at least the reasons given above in connection with Claims 16, 17, 32, and 33, respectively.

For at least the reasons set forth above, Applicants respectfully submit that all pending claims are patentable over the art of record, including the art cited but not applied. Accordingly, allowance of all pending claims is respectfully solicited.

Respectfully submitted,

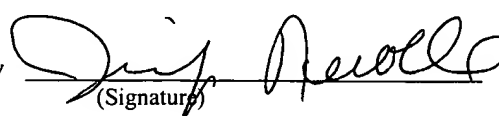HICKMAN PALERMO TRUONG & BECKER LLP

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